

## Opening address

### 01 | Ecological and Evolutionary Genomics: from metabarcoding to causative nucleotide

Mark Blaxter, Institute of Evolutionary Biology, University of Edinburgh, UK

Genetic factors define diversity in the natural world, and genetics can be used to probe many other processes and patterns operating in wild systems. The advent of high-volume, relatively cheap sequencing has transformed ecological and evolutionary genetics. I will present examples from my research collaborations where genomic data have been critical in revealing unexpected biodiversity, explaining variation, and dissecting fundamental biological systems. As genomics enters a new phase of larger datasets with higher resolution, genetics as an explanatory system and a widely applicable toolkit promises a parallel revolution in ecological and evolutionary studies.